REMARKS

The Examiner's outstanding Final Office Action has been carefully considered. In response thereto, the rejected claims have been canceled without prejudice. New claims, allowable as explained below, have been added hereby so as to advance prosecution.

Embodiments of the present invention advantageously can be formed of a housing having first and second different molded plastic elements. A first plastic element can be molded in part around a metal frame to which various electrical components can be attached. A second plastic element can be over-molded to enclose the first plastic element and the frame, except for predetermined contacts. The second plastic element also can define, at least in part, an interior sensing region with a gas inflow port. A flame arrestor, for example, a metal mesh, can be added to cover the gas inflow port. The resultant detector is light weight and inexpensive, and usable with flammable gases.

Unlike the pending claims, the detector of Figs. 4,5 of Howarth includes a plurality of separate conductors 37, 39 which are coupled via an electrode mount 34 to a detector element 36 and a compensating element 38. Electrode mount 34 is carried on an upper end of a cylindrical hollow metal body 31 which also contains the elements 36, 38.

The mount 34 is retained on the end of body 31 by a threaded metal cap 33. Also unlike the pending claims, except for the mount 34, the sensing chamber of Howarth is bounded by metal structures.

None of the other cited prior art addresses the deficiencies of Howarth, as noted above. As a result, the pending claims are allowable over Howarth, Doncaster et al., Tantram, or Otani et al., along or in combination.

Allowance of the application is respectfully requested.

Respectfully submitted,

HUSCH BLACKWELL SANDERS LLP
WELSH & KATZ

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By:

Paul M. Vargo
Reg. No. 29,116
Attorney for Applicant
120 South Riverside Plaza
Suite 2200
Chicago, IL 60606
(312) 655-1500 (Phone)